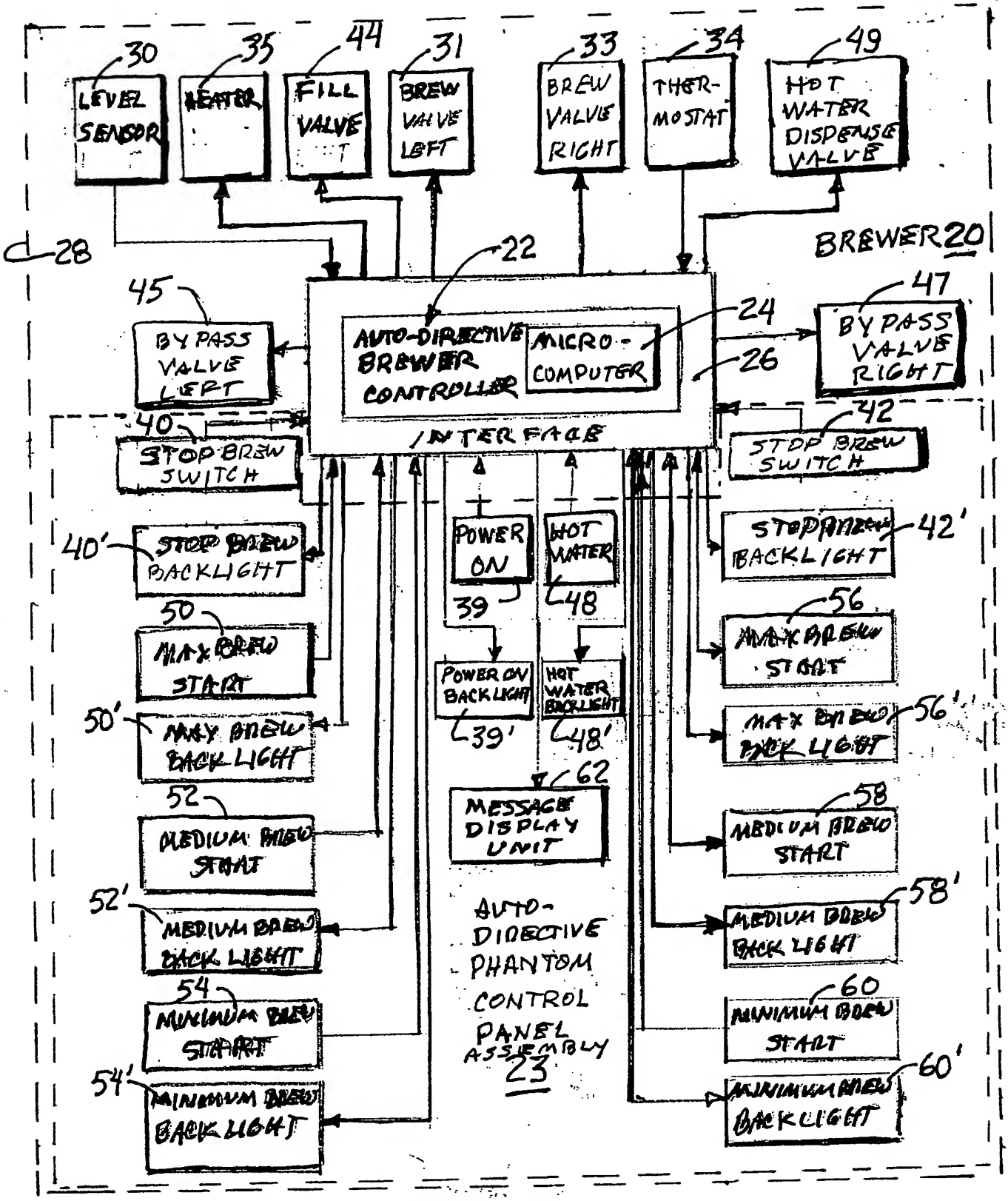

30
LEVEL SENSOR
35
HEATER
44
FILL VALVE
31
BREW VALVE LEFT
33
BREW VALVE RIGHT
34
THERMOSTAT
49
HOT WATER DISPENSE VALVE
28
BREWER 20
22
45
BY PASS VALVE LEFT
AUTO-DIRECTIVE BREWER CONTROLLER
MICRO-COMPUTER
24
26
47
BY PASS VALVE RIGHT
INTERFACE
40
STOP BREW SWITCH
42
STOP BREW SWITCH
40'
STOP BREW BACKLIGHT
42'
STOP BREW BACKLIGHT
POWER ON
39
HOT WATER
48
50
MAX BREW START
56
MAX BREW START
POWER ON BACK LIGHT
39'
HOT WATER BACK LIGHT
48'
50'
MAX BREW BACK LIGHT
56'
MAX BREW BACK LIGHT
62
MESSAGE DISPLAY UNIT
52
MEDIUM BREW START
58
MEDIUM BREW START
52'
MEDIUM BREW BACK LIGHT
58'
MEDIUM BREW BACK LIGHT
AUTO-DIRECTIVE PHANTOM CONTROL PANEL ASSEMBLY 23
54
MINIMUM BREW START
60
MINIMUM BREW START
54'
MINIMUM BREW BACK LIGHT
60'
MINIMUM BREW BACKLIGHT

Fig. 1

Fig. 2

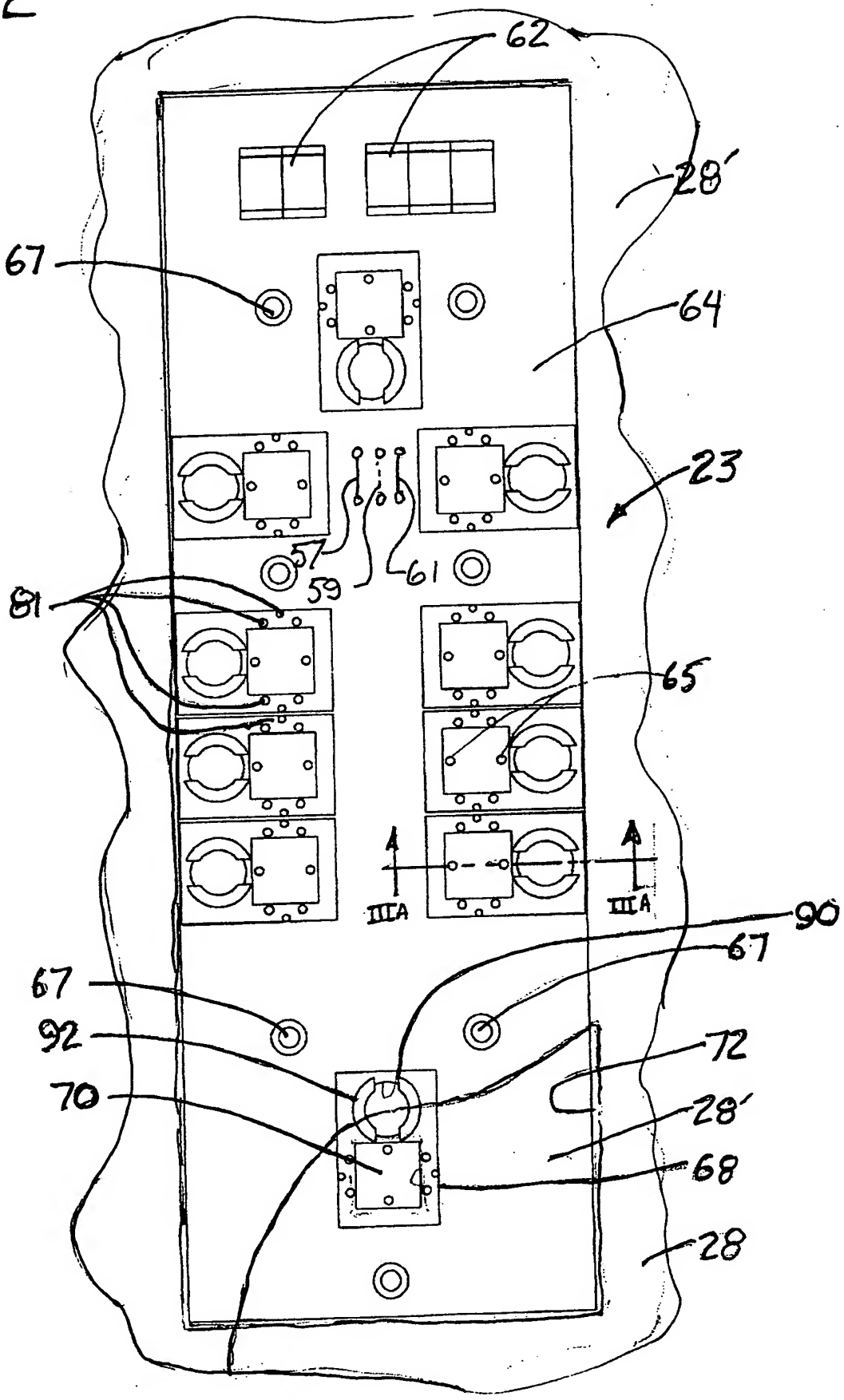


Fig. 3A

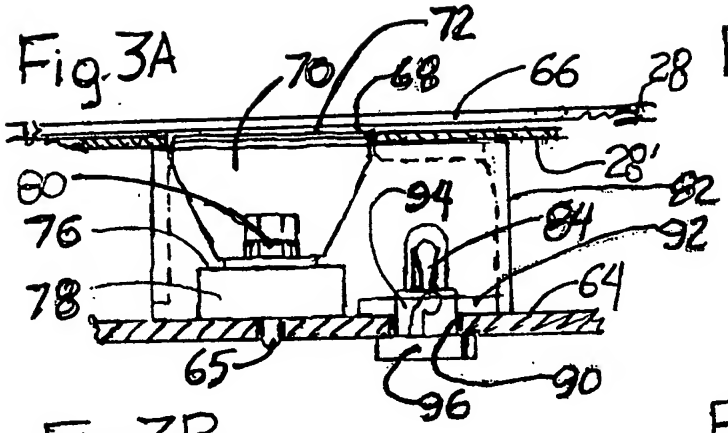


Fig. 3C

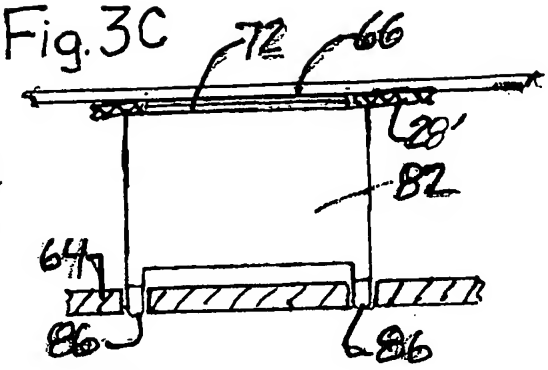


Fig. 3B

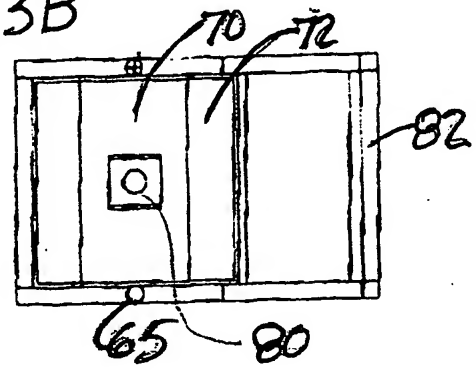


Fig. 3D

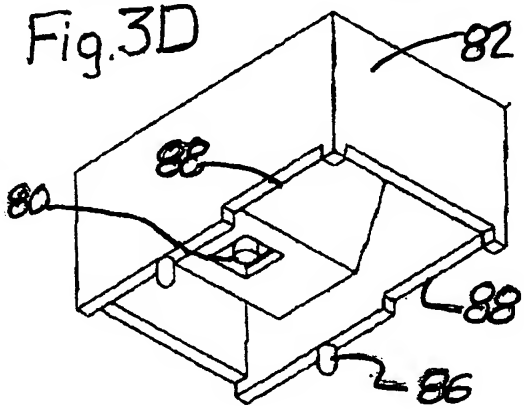


Fig. 4A

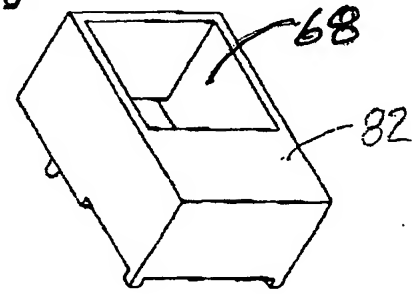


Fig. 4B

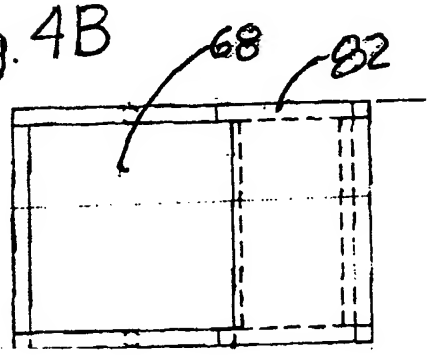


Fig. 4C

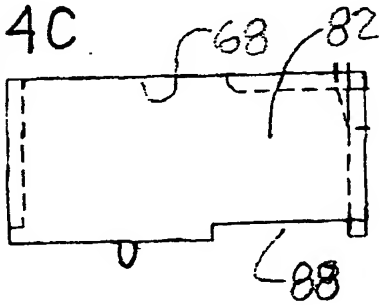


Fig. 4D

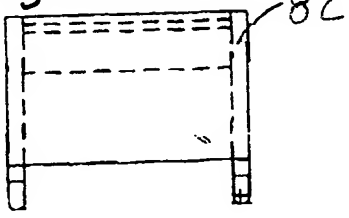


Fig. 6B

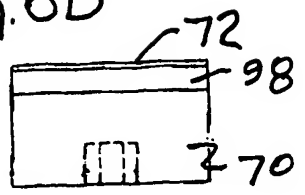


Fig. 6C

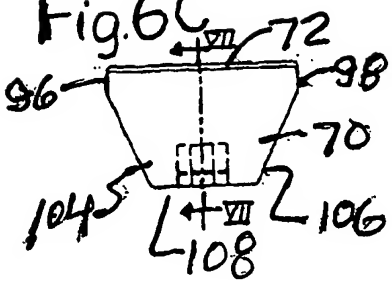


Fig. 7

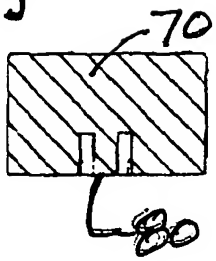


Fig. 6A

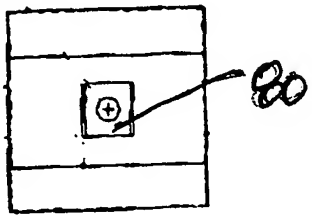


Fig. 5

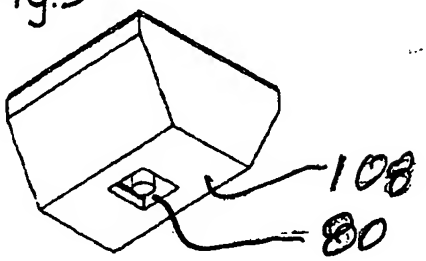


Fig 8A

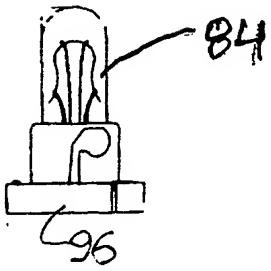


Fig. 9

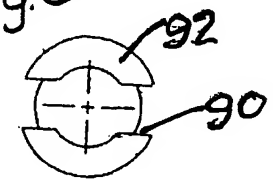


Fig. 8B

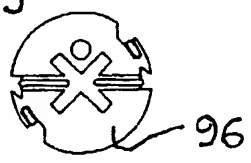


Fig. 10

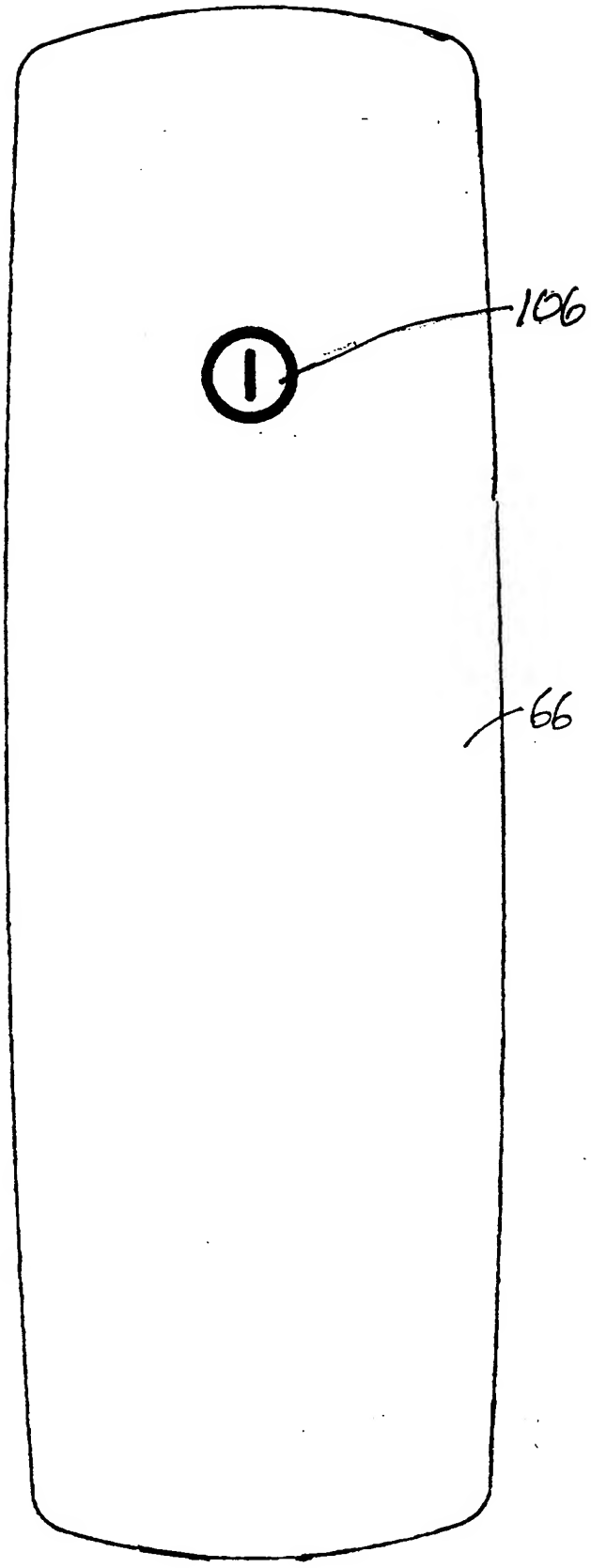


Fig. 11A

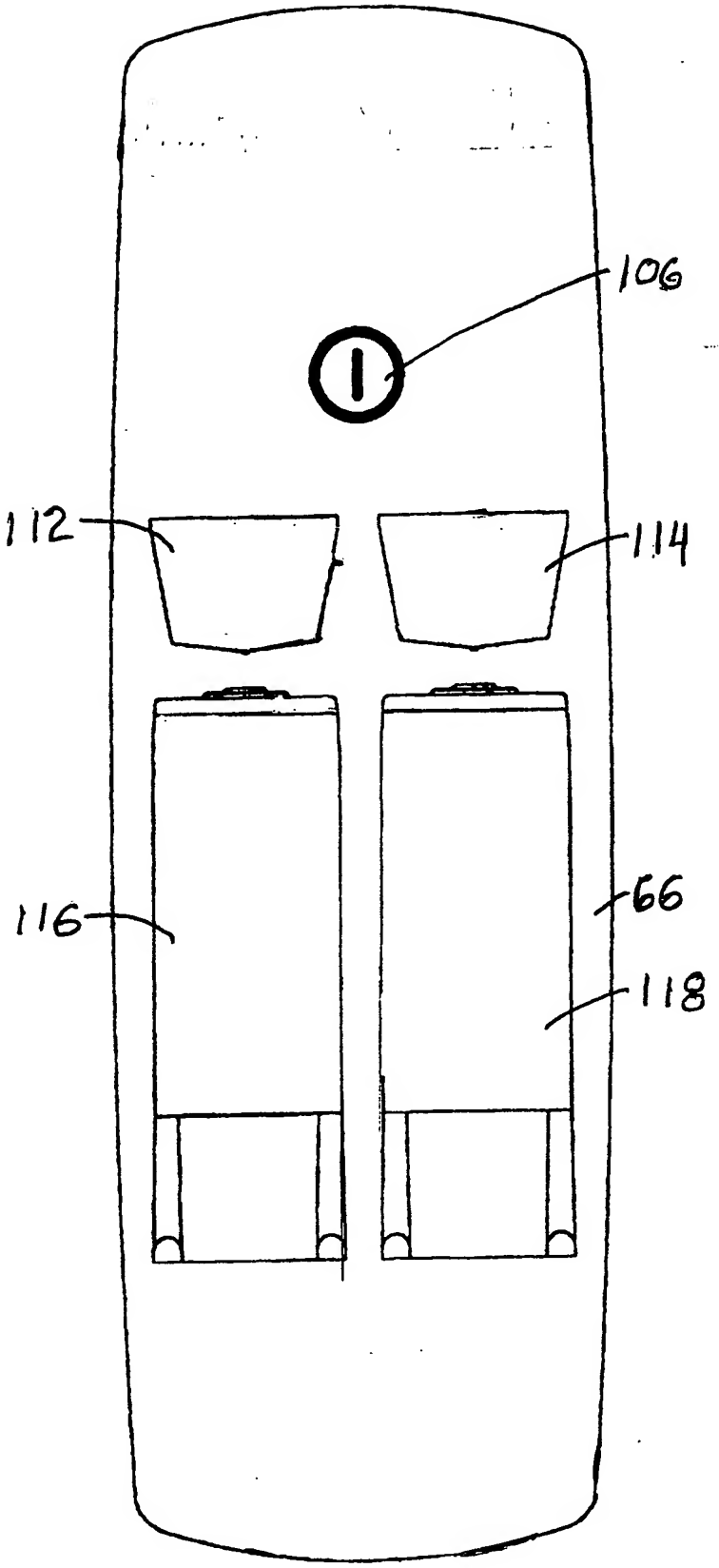


Fig. 11B

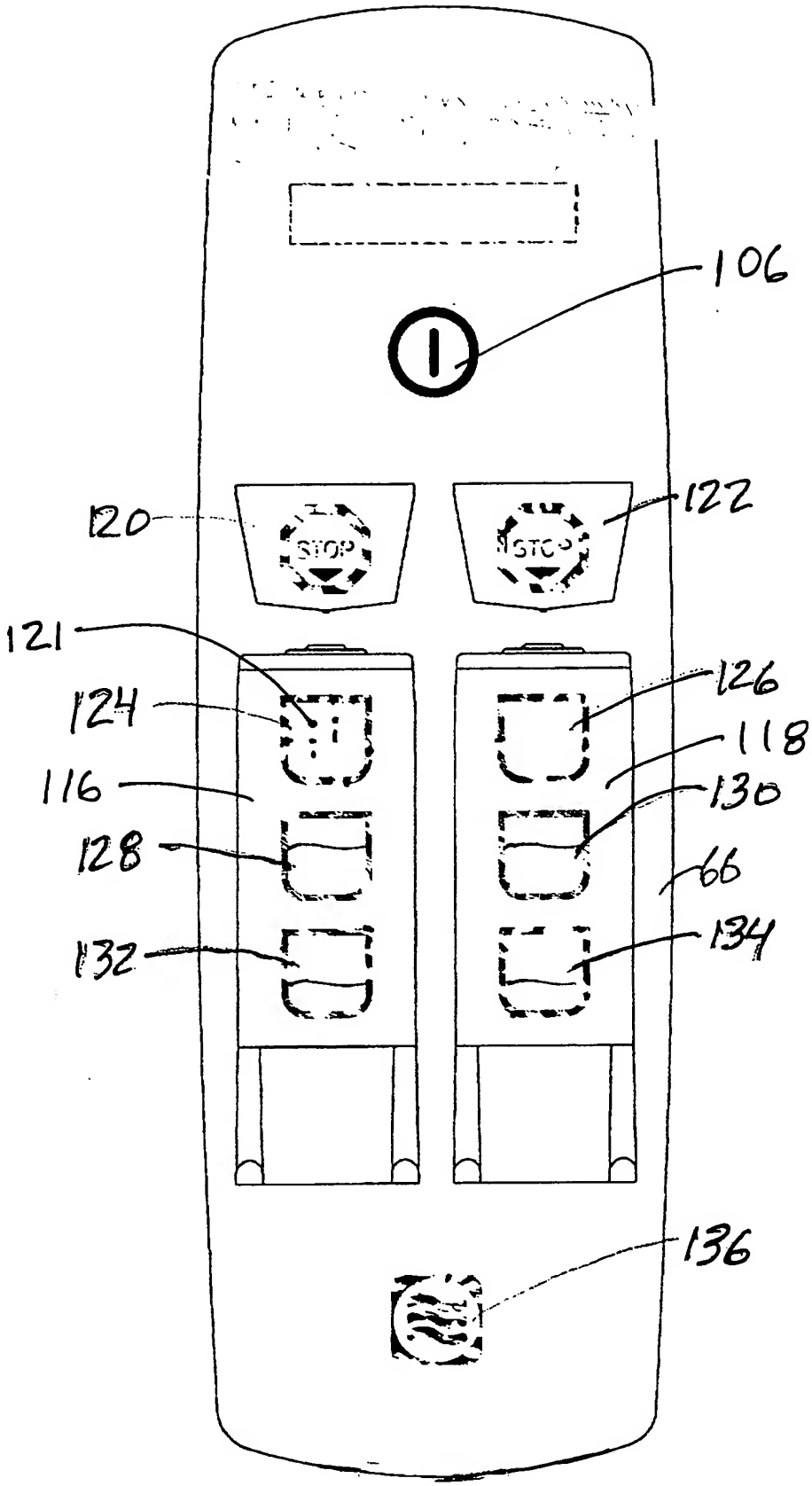


Fig. 11C

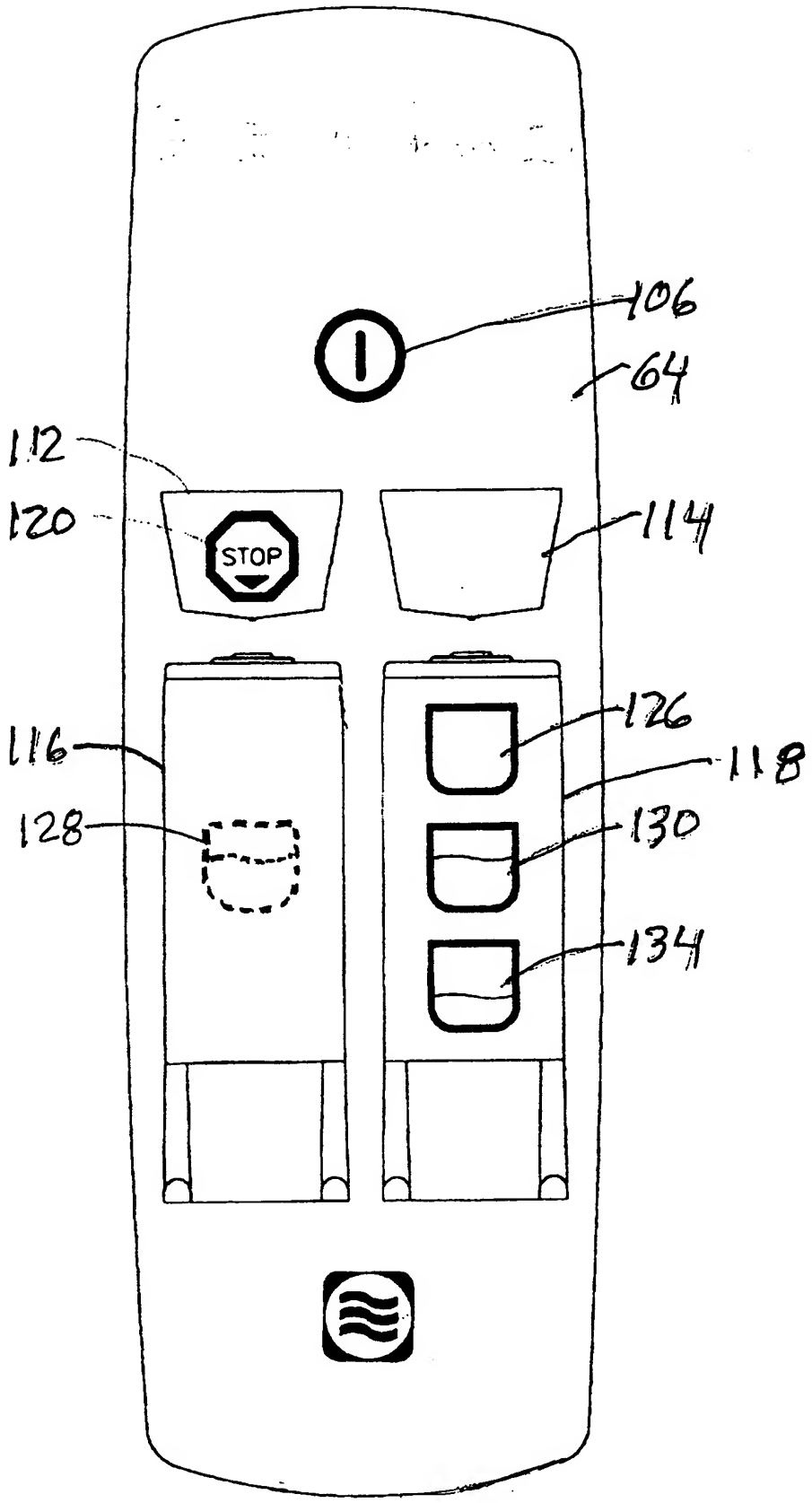


Fig. 11D

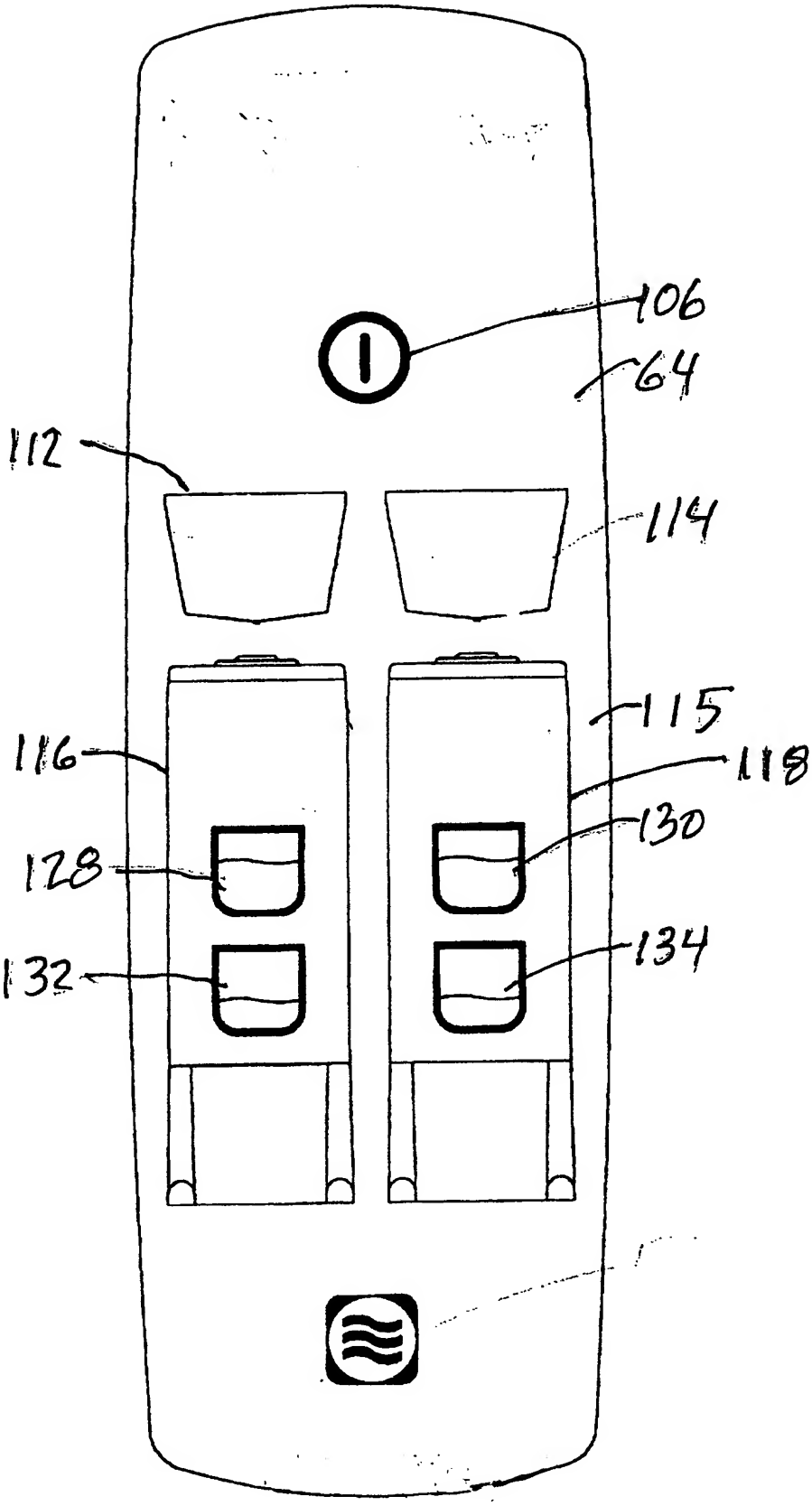


Fig. 12A

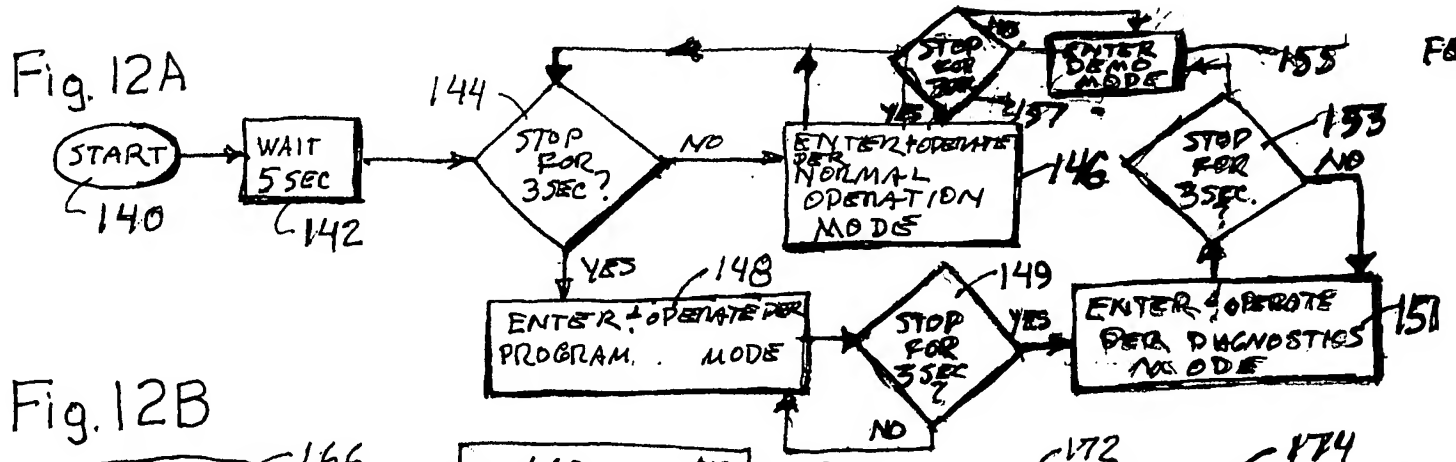
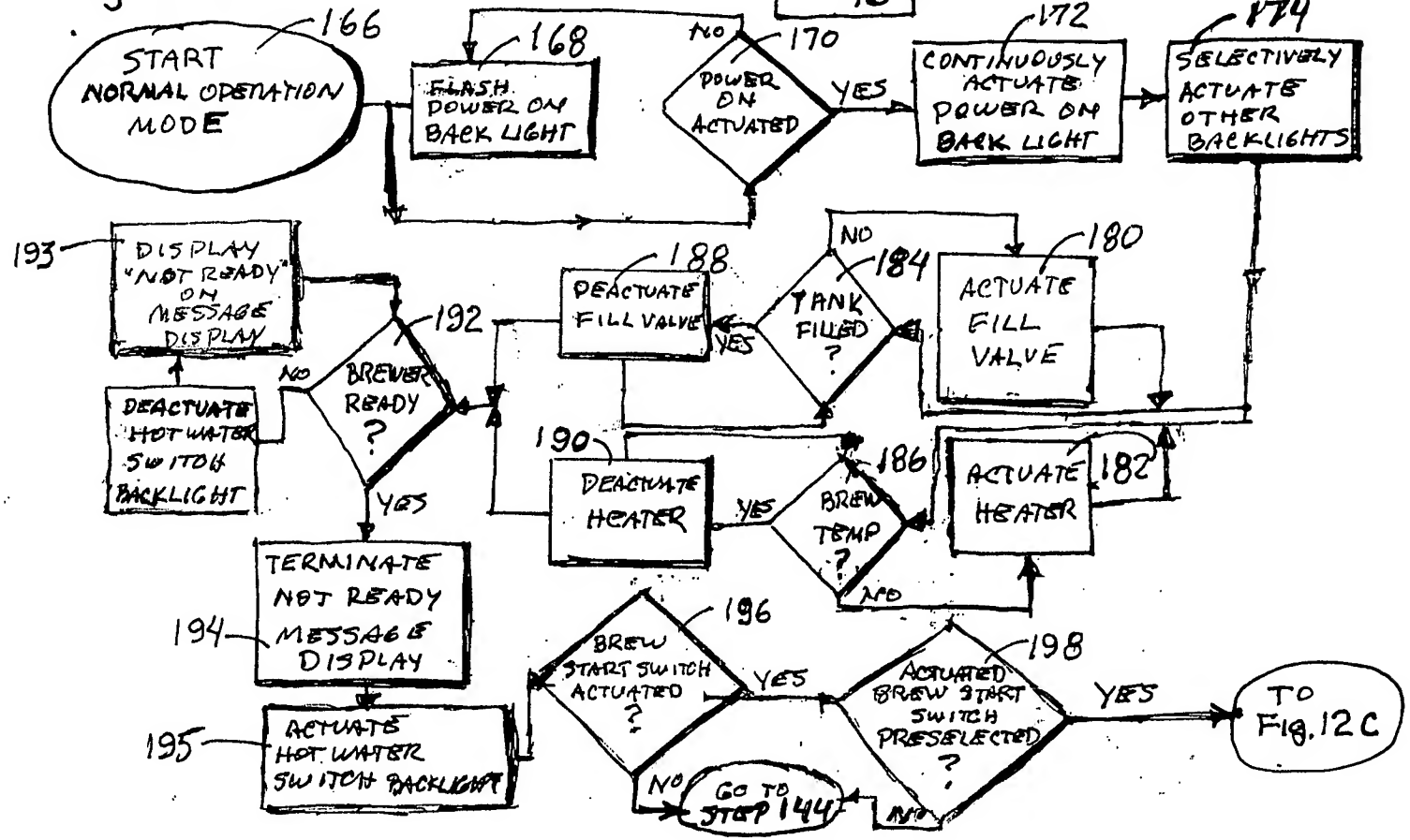


Fig. 12B



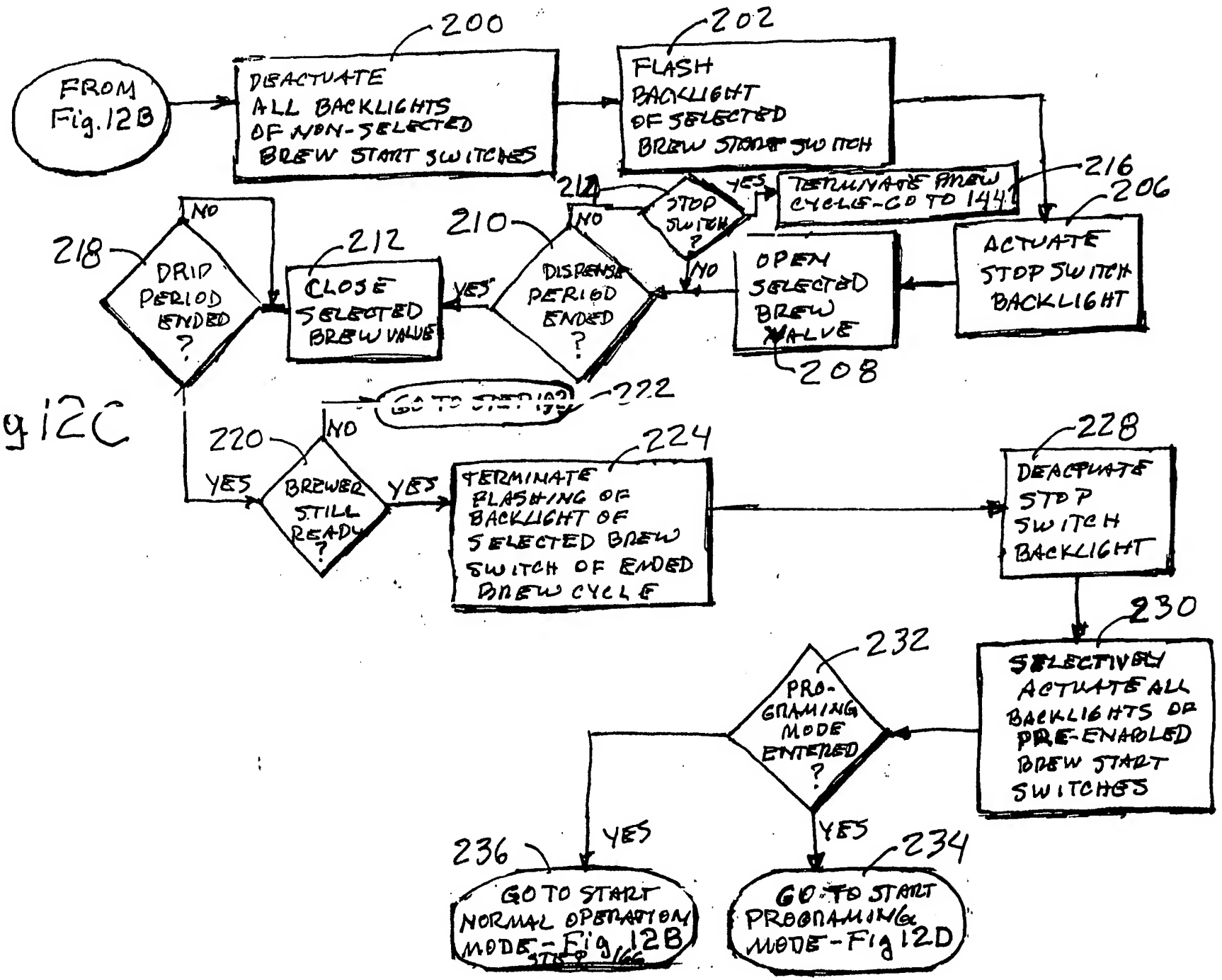
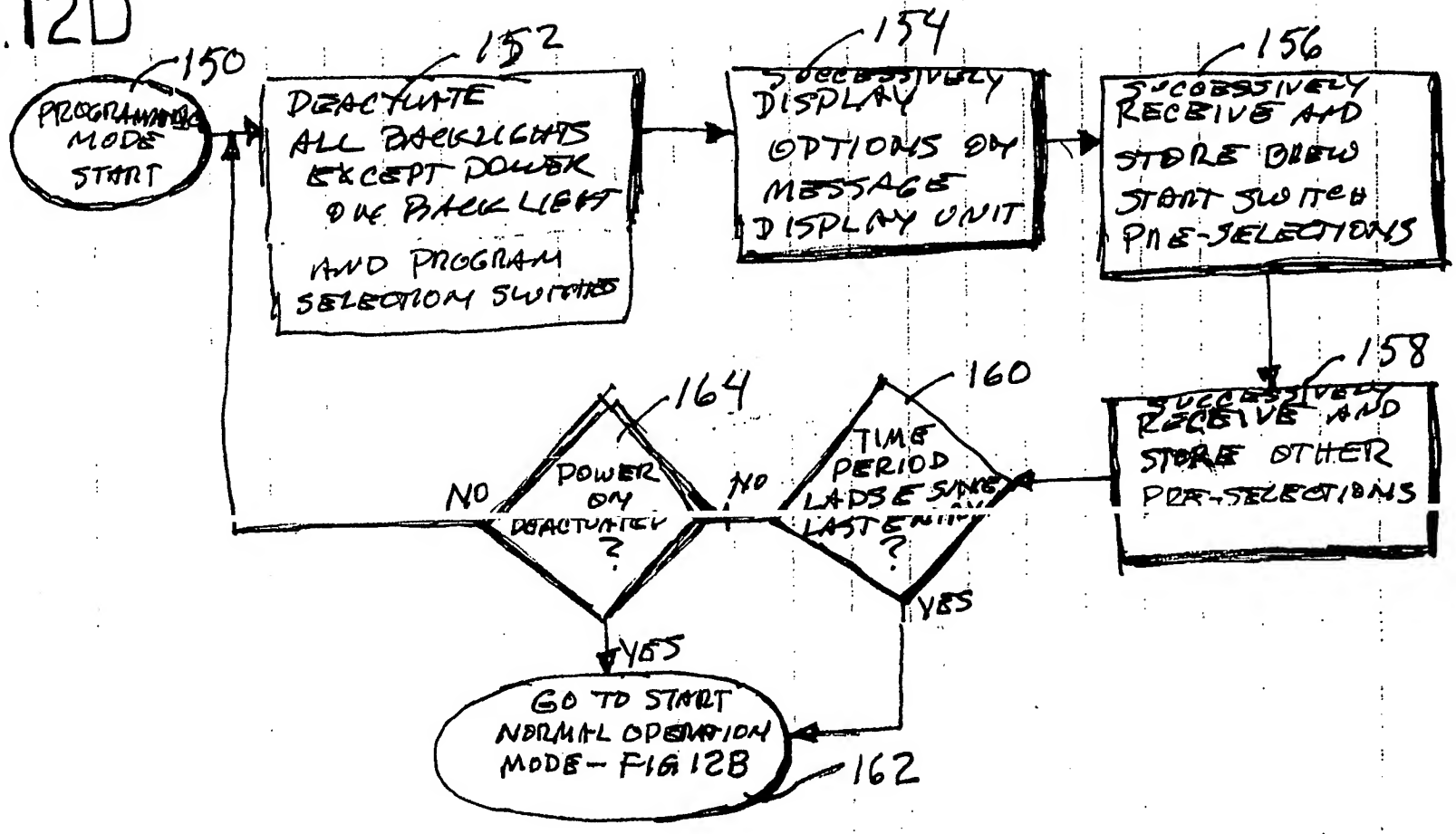

FROM Fig. 12B
200
DEACTUATE ALL BACKLIGHTS OF NON-SELECTED BREW START SWITCHES
202
FLASH BACKLIGHT OF SELECTED BREW START SWITCH
216
TERMINATE BREW CYCLE-GO TO 144
STOP SWITCH ?
YES
NO
206
ACTUATE STOP SWITCH BACKLIGHT
OPEN SELECTED BREW VALVE
208
210
DISPENSE PERIOD ENDED ?
NO
YES
212
CLOSE SELECTED BREW VALVE
218
DRIP PERIOD ENDED ?
NO
222
GO TO START 172
220
BREWER STILL READY ?
NO
YES
YES
224
TERMINATE FLASHING OF BACKLIGHT OF SELECTED BREW SWITCH OF ENDED BREW CYCLE
228
DEACTUATE STOP SWITCH BACKLIGHT
230
SELECTIVELY ACTUATE ALL BACKLIGHTS OF PRE-ENABLED BREW START SWITCHES
232
PROGRAMING MODE ENTERED ?
YES
YES
234
GO TO START PROGRAMING MODE - Fig 12D
236
GO TO START NORMAL OPERATION MODE - Fig 12B STEP 166

Fig 12C

Fig. 12D


150
PROGRAMMING MODE START
152
DEACTUATE ALL BACKLIGHTS EXCEPT DOOR ONE BACKLIGHT AND PROGRAM SELECTION SWITCHES
154
SUCCESSIVELY DISPLAY OPTIONS ON MESSAGE DISPLAY UNIT
156
SUCCESSIVELY RECEIVE AND STORE DESIRED START SWITCH PRE-SELECTIONS
158
SUCCESSIVELY RECEIVE AND STORE OTHER PRE-SELECTIONS
160
TIME PERIOD LAPSE SINCE LAST ENTRY ?
NO
YES
164
POWER ON DEACTUATED ?
NO
YES
GO TO START NORMAL OPERATION MODE - FIG 12B
162

Error Codes

Code	Description	Possible Cause	Corrective Action	How to Clear Error Codes: Software Ver. 1.61 and lower	How to Clear Error Codes: Software Ver. 2.0 and higher
001	Internal Error System had to reload default settings.	Control board failure.	Clear error. Re-program the brewer to the desired specifications. If error occurs again, replace control board.	Enter programming mode, then exit programming mode.	Turn main power switch off and on.
002	Power Failure Power state does not match feedback loop state.	Relay on control board has failed.	Replace control board.	Enter programming mode, then exit programming mode.	Turn main power switch off and on.
050	Shorted temperature probe.	Probe failure.	Replace probe.	Enter programming mode, then exit programming mode.	Turn main power switch off and on.
051	Open temperature probe.	Bad probe connection, or probe failure.	Check all connections. Replace probe if necessary.	Enter programming mode, then exit programming mode.	Turn main power switch off and on.
075	Brew basket lock or sensor failure. Basket was in place when brew cycle started, but was pulled out during the brew cycle. If this error occurs, the brew basket lock has failed, or the sensor is out of adjustment.	Brew basket lock has failed or sens if needs adjustment	Repair or replace brew basket lock, or adjust sensor.	Press the flashing control panel power switch to resume operation.	Press the flashing control panel power switch to resume operation.
100	Initial Fill Error Initial fill time was more than 8.6 minutes.	Water supply flow rate is too low.	Watch for short potting during brew cycle. Investigate cause of low flow rate. (Clogged water filter, etc.)	Press the control panel power switch.	Press the control panel power switch.
101	Error on refill Tank did not refill within 2 minutes.	Water supply flow rate is too low.	Watch for short potting during brew cycle. Investigate cause of low flow rate. (Clogged water filter, etc.)	Error message is cleared automatically at end of brew cycle.	Error message is cleared automatically at end of brew cycle.
102	Unwanted Fill When brewer is idle, the fill valve was activated for more than 30 seconds during a 1 hour period.	Possible leak in tank, fitting, or valve.	Check inside of machine for leaks.	Enter programming mode, then exit programming mode.	Turn main power switch off and on.
		Output on control board has failed, causing a dispense valve to open.	Replace control board.		

Fig. 13A

200	Flat Line Temperature (Water is boiling) System is calling for heat, but the temperature does not rise at least 2°F within 5 minutes.	Mercury relay is stuck closed, bad output on control board, or temperature is set too high for altitude.	Check mercury relay, check control board output, or adjust temperature for altitude.	Enter programming mode, then exit programming mode.	Turn main power switch off and on.
201	Heater Open System is calling for heat, but the temperature does not rise at least 2°F within 10 minutes. This error is disabled during brewing and while using the hot water faucet.	Heating element failure.	Check and replace heating elements if necessary.	Enter programming mode, then exit programming mode.	Turn main power switch off and on.
202	Heater Short System is not calling for heat, but temperature rises more than 5°F.	Possible mercury relay stuck closed, or bad output on control board.	Check mercury relay and control board.	Enter programming mode, then exit programming mode.	Enter programming mode, then exit programming mode.
255	Keypad Error A switch was pressed for more than 45 seconds.	Switch was held in too long, or switch is stuck closed.	Clear error and try again. If error occurs without switch being pressed, replace input board.	Enter programming mode, then exit programming mode.	Turn main power switch off and on.

Fig. 13B